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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/681,994 07/05/01 NERONE

L GEC 2 0585

EXAMINER

027885 MM91/1107
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP
1100 SUPERIOR AVENUE, SEVENTH FLOOR
CLEVELAND OH 44114

LEE, W

ART UNIT

PAPER NUMBER

2821
DATE MAILED:

11/07/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/681,994

Applicant(s)
Nerone

Examiner
Wilson Lee

Art Unit
2821



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 5, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above, claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jul 5, 2001 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Drawings

1. The drawings are objected to because Figures 5 and 6 should be changed to Figures 5a and 5b, Figures 6a and 6b respectively, to represent the waveforms and graphs. Correction is required.

Specification

2. The disclosure is objected to because of the following informalities:
 - 1) All the numerical, such as "[0001]" to "[0023]" on the left border of each page should be deleted.
 - 2) In the Brief Description of Drawings section, each of the figure illustration should be started on new line.
 - 3) In the Brief Description of Drawings section, Figures 5a and 5b, Figures 6a and 6b should be included corresponding to the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 3 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 3 and 10, line 2, "hfe" is not clear that what it actually represents. Is it a voltage value, current value, or temperature value?

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-16, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Nilssen (5,744,915).

Regarding Claims 1 and 8, Nilssen discloses a ballast circuit powered by an AC-to-DC converter(23) in operative connection with an input power source(terminal 32 and 33), the AC-to-DC converter(23) being configured to produce a DC voltage, the ballast circuit comprising a DC bus in operative connection with the AC-to-DC converter(23), configured to receive the DC voltage, an inverter circuit(FET1 and FET2) configured in operative connection with the DC bus, configured to generate an asymmetric alternating current on a lamp input line, and a gas discharge lamp(FL1) in operative connection to the lamp input line to receive the asymmetric alternating current(See Figures 4 and 9).

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Regarding Claims 2, 3, 9 and 10, Nilssen teaches that the inverter can be placed by bipolar transistors(42 and 43) shown in Figure 2 wherein the bipolar junction transistors are inherent to have unequal on times in order to attain the inverting effect.

Regarding Claims 4 and 11, Nilssen discloses that the inverter circuit includes MOSFET transistor switches wherein the MOSFETs are inherent to have unequal on times in order to attain the inverting effect(See Figure 9).

Regarding Claims 5 and 12, Nilssen discloses back-to-back series connected zener diodes bridging the gate and source terminals of the MOSFETs(See Figure 9).

Regarding Claims 6 and 13, Nilssen's zener diodes are inherent with unequal voltage values in order to attain the inverting effect.

Regarding Claims 7, 14 and 16, Nilssen discloses a DC blocking capacitor(e.g. BCa) configured to block DC current from the asymmetric alternating current(See Figure 14).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chang (6,194,840) discloses an electronic fluorescent lamp ballast in the same claimed manner.

Correspondence

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (703) 306-3426.


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9. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

10. Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

WL

11/05/01


Don Wong
Supervisory Patent Examiner
Technology Center 2800